

AMENDMENTS TO THE DRAWINGS

Please amend Figure 2 to illustrate the displaced filtered image “YDn” as being the preceding filtered image “Yn” displaced by displacement vector “D”. The drawing amendments are described in the application as originally filed and discussed below. No new matter has been added.

REMARKS / ARGUMENTS

Status of Claims

Claims 1-9 are pending in the application. Claims 1-3 stand rejected. Claims 4-9 are objected to but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant appreciates the Examiners remarks regarding the allowability of the noted claims. Applicant has amended Claim 1, and has added new Claims 10-14, leaving Claims 1-14 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(e) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Objections to the Drawings

The drawings are objected to under 37 CFR 1.83(a) because they allegedly fail to show the displaced filtered image YD as described in the specification (page 4, lines 20-27).

Applicant traverses this objection for the following reasons.

Applicant has amended Figure 2 to illustrate the language of the specification as originally filed. More specifically, Applicant has amended Figure 2 to illustrate the displaced filtered image YD_n, which is described in the specification as being “the preceding filtered image displaced relative to the preceding filtered image Y_n”. Page 4, lines 24-25.

In Figure 2, Applicant now illustrates the displaced filtered image “YD_n” as being the preceding filtered image “Y_n” displaced by displacement vector “D”.

No new matter has been added as the amended drawings merely reflect by illustration that which was originally fully described by text.

In view of the foregoing, Applicant submits that the drawings comply with 37CFR 1.83(a), and respectfully requests that the Examiner reconsider and withdraw this objection, which Applicant considers to be traversed.

Rejections Under 35 U.S.C. §102(e)

Claims 1-3 stand rejected under 35 U.S.C. §102(e) as being anticipated by Florent et al. (U.S. Patent No. 6,151,417, hereinafter Florent).

Applicant traverses this rejection for the following reasons.

Applicant respectfully submits that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the *** claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose *all of the claimed elements “arranged as in the claim.”* *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984) (emphasis added). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Applicant has amended Claim 1 to now recite, inter alia,

“...acquiring an image sequence including a current image and a preceding image, filtering the preceding image, and *applying a displacement vector to the preceding filtered image, thereby defining a displaced preceding filtered image...*”.

Additionally, Applicant respectfully submits that Claim 1 also recites, inter alia,

“...wherein for each acquired current image, a displacement of the current image is determined relative to the acquired preceding image in an image acquisition plane, *the displaced preceding filtered image* is elaborated *by spatially displacing the preceding filtered image*, taking the displacement of the current image into account, and the current

filtered image is elaborated by a weighted average between the acquired current image and *the displaced preceding filtered image*, so as to improve the quality of the images visualized.”

Dependent claims inherit all of the limitations of the parent claim.

Here, Applicant’s claimed invention includes *applying a displacement vector to the preceding filtered image, thereby defining a displaced preceding filtered image*, and elaborating *the displaced preceding filtered image*.

In alleging anticipation, the Examiner remarks that Florent discloses each and every element of the claimed invention, including “filtering the current image and the preceding image (fig. 4a)”. Paper 20051019, page 2.

To better describe the subject matter that Applicant regards as the invention, Applicant has amended Claim 1 as discussed above.

In comparing Florent with the claimed invention, Applicant finds Florent to disclose a noisy image and a filtered preceding image (Abstract and column 1, line 67, through column 2, line 10), but to be absent any disclosure of *applying a displacement vector to the preceding filtered image, thereby defining a displaced preceding filtered image*, and elaborating *the displaced preceding filtered image*, which is specifically claimed for in Claim 1.

Accordingly, Applicant submits that Florent does not disclose all of the claimed elements arranged as in the claim, and absent anticipatory disclosure in Florent of each and every element of the claimed invention arranged as in the claim, Florent cannot be anticipatory.

Furthermore, Applicant would like to re-emphasize that the originally presented language of Claim 1 recited, inter alia,

“...wherein for each acquired current image, a displacement of the current image is determined relative to the acquired preceding image in an image acquisition plane, *a displaced preceding filtered image* is elaborated *by spatially displacing the preceding filtered image*, taking the displacement of the current image into account, and the current filtered image is elaborated by a weighted average between the acquired current image

and *the displaced preceding filtered image*, so as to improve the quality of the images visualized.”

Accordingly, Applicant respectfully submits that the arguments and amendments presented herein are made for the purposes of better defining the invention, rather than to overcome the rejections for patentability, and that Applicant’s amendment to Claim 1 therefore cannot necessitate new grounds of rejection if based on prior art directed to a *displaced preceding filtered image*.

In view of the foregoing, Applicant submits that Florent does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner’s rejection under 35 U.S.C. §102(e) has been traversed, and requests that the Examiner reconsider and withdraw of this rejection.

Regarding New Claims 10-14

Applicant has added new Claims 10-14, which describe the subject matter of Claims 1, 4-6 and 8, in alternative language.

No new matter has been added as antecedent support may be found in the specification as originally filed.

In view of the previous discussion relating to Claim 1, and claims dependent therefrom, Applicant respectfully submits that Florent does not disclose, teach or suggest the claimed invention of new Claims 10-14, and does not motivate one to arrive at the claimed invention.

Accordingly, Applicant submits that new Claims 10-14 are directed to allowable subject matter and respectfully requests entry and notice of allowance thereof.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 50-2513.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

CANTOR COLBURN LLP

Applicant's Attorneys

By: 

David Arnold

Registration No: 48,894

Customer No. 23413

Address: 55 Griffin Road South, Bloomfield, Connecticut 06002
Telephone: (860) 286-2929
Fax: (860) 286-0115